

MetroFibre modernizes to meet exponential bandwidth growth in South Africa



When demand for fast, reliable Internet skyrocketed in South Africa, MetroFibre invested in its metro network to not only overcome a bandwidth crunch but also to make broadband more widely accessible and affordable.

MetroFibre turned to Juniper's ACX line of Universal Metro Routers to deliver highly reliable network services to ISPs, businesses, residential properties, and consumers.

OVERVIEW

Company	MetroFibre Networks
Industry	Service Provider
Products Used	ACX5400, ACX710, MX480, MX960, MX10003, SRX340
Region	EMEA

CUSTOMER SUCCESS AT-A-GLANCE

3rd Largest

Fiber-to-the-home provider in South Africa

Reduce TCO

Cloud Metro - With converged, service-intelligent IP fabric

350,000

Homes and businesses passed by the MetroFibre network

70% - 80%

Reduction in major logical network incidents per month

● CHALLENGE

A bandwidth crunch led to resiliency issues

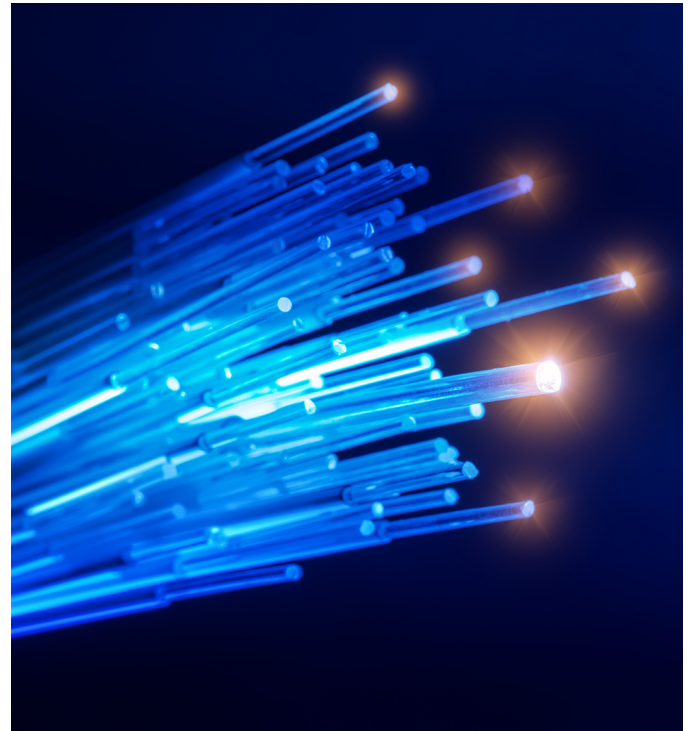
Like many service providers, MetroFibre also experienced the unprecedented surge in broadband demand as Covid first swept across South Africa.

"When people work from home, they expect the same type of experience as from the office: No packet loss and any convergence switching should be transparent to the user and not resulting in their internet connectivity going down for up to 30 seconds," says Riaan Vos, principal network specialist, engineering at MetroFibre.

To deliver Cloud Metro with greater resiliency, capacity, and efficiency, MetroFibre redesigned its metro network for exponential scale.

"We needed a vendor that could pave the way for the future of MetroFibre," says Vos.

MetroFibre sought a Cloud Metro solution that could meet customers' high expectations and support advanced technologies like Ethernet VPN (EVPN) and Segment Routing. A more stable and efficient network would also free up engineering resources from service configuration and other manual operations for more strategic work.




SOLUTION

Build a new converged service edge

MetroFibre turned to Juniper for a converged service edge Cloud Metro solution to deliver optimized user experiences while sustaining business growth. With Juniper ACX Series Routers, MetroFibre can deliver multiple IP services from a single platform, efficiently meeting the needs of its ISP, business, and residential customers.

“The ACX router ticks the boxes for metro networks,” says Vos. “Some of our field sites are quite small, and the ACX routers are light on resource consumption and have a small footprint.”

The high-performance, high-density ACX routers are ideal for MetroFibre locations where rack space, power and cooling resources are limited. The ACX710 router delivers the performance, capacity and features needed in a hardened, compact footprint, while the ACX5448 router is built to handle high-density 1GbE, 10GbE, and 100GbE interfaces.

The ACX routers also delivered on MetroFibre’s requirements for EVPN and Segment Routing, simplifying Layer 2 service delivery and providing greater control over the network with reduced resource requirements.

MetroFibre also uses the Juniper MX480, MX960, and MX10003 Universal Routing Platform for its core network and Juniper SRX Firewalls to securely connect customers’ locations.

MetroFibre worked closely with NEC XON, a Juniper Global Alliance partner, on the metro network transformation. “There is no work in isolation,” says Vos. “NEC XON has been very supportive through this whole journey, with advice on platforms to investigate and guidance on how to scale the network.”


OUTCOME

Primed for high bandwidth growth

MetroFibre has overcome the capacity crunch, improved resiliency, and expanded its geographical reach with Juniper’s metro solution.

“We are seeing a 70% to 80% reduction in the number of monthly major logical network incidents,” says Vos.

MetroFibre is ready for high bandwidth growth. As of 2022, MetroFibre’s open-access network passed 350,000 of homes and thousands of businesses in six provinces across South Africa, and it plans to pass an additional 500,000 homes by 2025.

The expansion also allowed MetroFibre to revamp its fiber-to-the-home packages, doubling speeds at no extra cost to subscribers and introducing packages tailored to intensive users. MetroFibre’s new pay-as-you-go plan makes connectivity affordable to people in underserved areas, with the potential to bring Internet services to millions of people, reduce the digital divide and maximizes opportunities for MetroFibre to expand their footprint and foster social impact.

MetroFibre is also well-positioned to meet the needs of businesses of all sizes and its ISP customers with business Internet, voice, Layer 2 services, data center and cloud connectivity, and IP transit, all delivered over a converged, multiservice edge.



“Juniper has brought more stability to the MetroFibre network, instilling customer trust with the network. It has also freed engineering time for making network enhancements.”

Riaan Vos
Principal Network Specialist, Engineering, MetroFibre

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